

REMARKS

Claims 1-8 and 10-15 were pending in the application prior to this amendment. Claim 16 is added herein, therefore, claim 1-8 and 10-16 are pending.

In the Office Action of March 7, 2001, the Examiner states that claims 1-8 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlston (U.S Patent 4,998,997), in view of Platkiewicz (U.S. Patent 4,456,799), and further in view of Curtis (U.S. 5,036,774) and Spencer et al. (U.S. 5,086,707). Platkiewicz, Curtis and Spencer being cited to overcome the deficiency in Carlston for not disclosing at least one slip lining.

Applicant has amended claims 1 and 15 to clearly point out the Applicant's spring is of a special toroidal shape. In support of the amended claims, Applicant has amended the specification accordingly. Applicant does not believe the specification modifications introduce new matter for the reason that follows.

The present specification at page 6, lines 12-15 discloses that the cross-sections of the toroidal shapes can at least be circular and square. A toroid is defined as a surface generated by the rotation of a plane closed curve (i.e. a cross-sectional shape such as a circle or square) about an axis lying in its plane and not intersecting it. Inherent in a toroid having these cross-sectional shapes, therefore, is the requirement that the inner most point of the cross section, the point closest to the axis of rotation of the toroid, be on a line drawn perpendicular to the axis of rotation of the toroid through the geometric center of the cross section.

Carlston discloses thermoplastic elastomer springs that are designed to be folded and flexed. Col. 2, line 18. "The elastomeric spring is so designed so that throughout its total travel from free height, it is folding and flexing rather than compressing." col. 4 lines 15-17. The spring disclosed by Carlston has a void along the line of revolution to accomplish this folding and flexing. This void is inconsistent with Applicant's special toroidal shape in that some portion of the section would be within the right cylinder.

Applicant respectfully submits that Carlston does not disclose the additional limitation of the special toroidal shape nor is the special toroidal shape made obvious by Carlston to one of ordinary skill art due the requirement that the elastomeric spring fold. In addition, Carlston in combination with any of the other references does not disclose or make obvious the special toroidal shape limitation.

Applicant notes the Magowan reference cited by the Examiner but not relied upon. Applicant does not believe that this reference can be combined with Carlston to make obvious the present invention as amended herein. Magowan teaches a toroidal shaped spring in combination with a central cylindrical core. Neither Magowan nor Carlston have any teaching or suggest any motivation to disassociate the toroidal shaped ring from the central cylindrical core and use the toroidal shaped ring independently in a Carlston type device.

At least for this reason, Applicant believes that this amendment to claims 1 and 15 makes the claims allowable. As the balance of the claims are all depend from claim 1, they too are allowable as depending from an allowable claim.

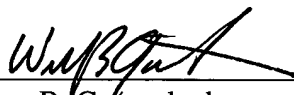
Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

No fees of deficiencies if fees are believed to be owed. However, authorization is hereby given to charge our Deposit Account No. 13-0235 in the event any such fees are owed.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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In the specification:

Paragraph beginning at line 11, of page 6 has been amended as follows:

Referring to FIG. 2, the toroidal rings 62 are made from a suitable material, such as, but not limited to polyurethane. While toroid shaped rings with circular cross sections have been shown and described, the present invention is not limited in this regard as other cross sectional shapes, such as square, can be employed without departing from the broader aspect of the present invention.

Paragraph beginning at line 16, of page 6 has been added as follows:

In the cases such as where a circular and square cross section are rotated about an axis to form a toroid, the inner most point of the cross-section, the point closest to the axis of rotation of the toroid, is on a line drawn perpendicular to the axis of rotation of the toroid through the geometric center of the cross-section. Toroidal shapes having the limitation that inner most point of the cross section is on a line drawn perpendicular to the axis of rotation of the toroid through the geometric center of the cross-section are defined herein as special toroidal shapes.

In the claims:

Claim 1 has been amended, as follows:

1. (Twice Amended) A bearing pad assembly comprising:
 - a first housing having an exterior surface and defining a bore extending at least part-way through said first housing;
 - a first load bearing member coupled to said first housing, and defining an outwardly facing first abutment surface;
 - a second housing defining a bore of a shape similar to said exterior surface of said first housing and adapted to slideably receive said first housing therein;
 - a second load bearing member coupled to said second housing and defining an

outwardly facing second abutment surface opposite to said first abutment surface; and
biasing means being of a special toroidal shape for urging said first and second
load bearing members away from one another in response to a load being imposed upon
at least one of said first and second abutment surfaces.

Claim 7 has been amended as follows:

7. (Amended) The assembly of claim 4 wherein the solid resilient material is in the form
of a toroidal ring having a circular cross-section.

Claim 10 has been amended as follows:

10. (Twice Amended) The assembly of claim 16 wherein the slip lining has a coefficient
of static friction less than that of the first housing.

Claim 11 has been amended as follows:

11. (Twice Amended) The assembly of claim 16 wherein the slip lining is attached to the
first housing exterior surface.

Claim 12 has been amended as follows:

12. (Twice Amended) The assembly of claim 16 wherein a second slip lining is attached
to the second housing bore wall.

Claim 13 has been amended as follows:

13. (Twice Amended) The assembly of claim 16 wherein the slip lining is made
substantially of an organic polymer.

Claim 15 has been amended as follows:

15. (Twice Amended) A bearing pad assembly comprising:

a first housing having a bore extending through said first housing;

a first load bearing member coupled to said first housing and defining an abutment surface opposite to said first housing;

a second housing having a bore extending through said second housing, adapted to telescopically receive said first housing;

a second load bearing member coupled to said second housing and defining an abutment surface opposite to said second housing; and

at least one spring in the shape of a special toroidal shape ring positioned within said first housing bore, for urging said first and second abutment surfaces away from each other in response to a load imposed on at least one of said abutment surfaces.

Please add claim 16 as follows:

16. The assembly of claim 1 further comprising at least one slip lining positioned between said first housing exterior surface and a bore wall defining said second housing bore.